

COASTAL CONNECTIONS



VOLUME 1, ISSUE 6

A BIMONTHLY PUBLICATION FOCUSED ON TOOLS FOR COASTAL RESOURCE MANAGERS

DECEMBER 2003/JANUARY 2004

COASTAL MANAGEMENT PROFILE



Cathie Ballard

Chief, Michigan Coastal Management Program
cunninggc@michigan.gov

Full name: Catherine Cunningham Ballard

Hometown: Lansing, Michigan

Education: Bachelor of science in resource development and master of science in environmental planning and policy, Michigan State University.

Most fulfilling aspect of your job: Working with coastal communities. It's very satisfying to see projects that were funded years before become successful large-scale initiatives.

Most challenging aspect of your job: Maintaining staff expertise. We have to serve as aquatic biologists, geologists, environmental planners, landscape architects, administrators, historians, GIS technicians, etc.

Things you do in your spare time: hike, camp,

Continued on Page 2

THIS ISSUE'S FOCUS

COASTAL OBSERVING SYSTEMS

Coastal and ocean observation systems have been used in many regions of the U.S. for years. So why the recent buzz over them? For one, the U.S. Commission on Ocean Policy, the committee appointed to make recommendations to the president and Congress for a national ocean policy, has indicated that supporting such a system is one of its key priorities. In addition, coastal managers have been asking for years for more coastal data, information, and applications and in turn are asked to justify their programs based on performance measures that require this kind of information. So, many coastal interests are now working toward this goal, putting ocean observation at the forefront of their agendas.

What Is an IOOS?

IOOS, the integrated ocean observing system, is an effort to combine existing local, regional, and national observing systems, as well as newly developed ones, into a comprehensive network that will span U.S. waters. Ultimately, this national system will also be compatible with a global system so that scientists and resource managers will be able to access and share data worldwide. Such a system can include a network of sensor buoys, remote sensing data, and local sampling, as well as communication and data management subsystems to make the data available and usable.

Why Do This?

Many different organizations have independently been doing this kind of monitoring for years. The integrated system aims to coordinate these efforts so that there is less duplicated work, easier ways to share data, better ability to detect trends and patterns, and improved decision making. Greater accessibility to this information can then help the resource management community manage the world's coasts and oceans more efficiently and, it is hoped, more effectively.

How Will It Work?

IOOS has a global component, which focuses on global weather and climate, and a coastal component, which is concerned with the effects of the ocean, climate, atmosphere, and human activities on the U.S. coastal zone. The coastal component will be made up of regional observing systems contributing to and supported by a national "backbone" of observing systems and data standards. IOOS will work in this way:

1. Local, regional, and national monitoring systems collect data.
2. Regional information systems, working with the national network, accept the data and make them accessible to all users.
3. Products and services are generated from the data and models. These products can range from storm surge forecasting to decision support for water quality permitting.

Continued on Page 2

Profile continued from Page 1

kayak, garden, and read

Family: Husband, Don;
daughter, Kami

Favorite movie: *Harvey*
(Jimmy Stewart movie)

In your CD player right

now: *Night Sessions* by
Chris Botti

Having grown up in the Great Lakes State of Michigan, Cathie Ballard was never very far from water. And her coastal proximity inevitably drew her to a career protecting Michigan's coasts. But recently, Cathie has been involved in a project that preserves farmland and open space in a small Michigan township. "I never expected to get into ag[ricultural] land preservation," notes Cathie. But this township, a peninsula in Grand Traverse Bay, is "one of the highest cherry and fruit production areas in the state," she says, "and residential development was encroaching." Coastal zone management grants helped the township preserve over 5,000 acres of coastal land for agriculture and open space.

It's efforts like these that earned Cathie the 2003 Outstanding State Official award from Michigan's regional planning commissions. "We work a lot with regional commissions to develop geographic information systems, seasonal population studies, land use planning projects, etc.," she notes.

But lately, Cathie is most proud of an accomplishment closer to home—building her porch. Cathie and her husband, Don, rebuilt their back porch entirely from scratch. Cathie and Don live in Dimondale, Michigan, and just celebrated their first anniversary.

Coastal Observing Systems continued from Page 1

Who's Doing It?

In the late 1990s, Congress requested that the U.S. make greater efforts toward establishing an integrated ocean observing network. In response, the National Oceanographic Partnership Program created Ocean.US to oversee the overall effort, but collaboration among industry, nongovernmental organizations, academia, and international, state, and federal agencies is really what will make the system function as envisioned (for more information on Ocean.US, go to www.ocean.us). The National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center is working with Ocean.US to organize the regional and national governance systems necessary to push the network forward. As part of NOAA, the Center is also helping to develop resulting products and services.

How Does This Affect Coastal Managers?

The implications of a nationally integrated observing system on coastal resource management are vast. In fact, several of the seven stated themes for the national system concern coastal resource management (see the box below). This sort of system can allow coastal managers to obtain coastal information quickly, share it with others, and compare data to earlier data sets to detect trends and make forecasts and decisions.

Coastal managers in Florida have been able to do just that thanks to an observing and forecasting system in Tampa Bay. NOAA's Physical

SEVEN THEMES

- Predict climate change and effects
- Mitigate natural hazards
- Improve marine operations
- Improve national security
- Reduce public health risks
- Protect ecosystems
- Sustain marine resources

Oceanographic Real-Time System (PORTS) measures real-time conditions in the bay to provide "nowcasts" and predictions of such conditions as winds, tides, currents, and water levels. Mark Luther, a professor at the University of South Florida and manager of Tampa Bay's PORTS, notes that the system has been extremely helpful in predicting the movement of hazardous spills into the bay. In 1993, a prototype of the current PORTS system helped predict the flow of a large oil spill. At the time, notes Luther, "nobody listened to us about

some mangroves and eelgrass we said would get oiled—and they did. Now they listen to us."

For an observing system to be truly useful, existing monitoring efforts must be integrated to give a cohesive description of an ecosystem's condition. In southern California, the Southern California Coastal Water Research Project (SCCWRP) Authority is helping with this kind of integration by organizing a regional monitoring network of more than 60 organizations, including state and local government, industrial dischargers, public health agencies, volunteer organizations, and academic institutions.

"These regional surveys provide tremendous management benefit," says SCCWRP executive director Steve Weisberg. "Not only do they meet managers' needs for a regional assessment, but they also help develop tools, data management systems, and quality assurance standards for everyday management decisions."

Right now, a great deal of coastal observation work is going on at all levels. The challenge is to get the IOOS system off the ground—and then sustain it. For more information on observation systems in your area, see "U.S. Observing Systems" on page 3 of this newsletter.

A COASTAL OBSERVATION GLOSSARY

IOOS, GOOS... what's with all the OOSes? The abbreviations, acronyms, and other terminology used in discussing coastal observing systems can be pretty dense. This brief glossary can help you decipher the most common terms.

Coastal component—part of the IOOS plan concerned with the effects of the ocean, climate, and human activities on the U.S. coastal zone

COTS—Coastal Observation Technology System, a group of research organizations given grants by the NOAA Coastal Services Center to develop a model demonstration of regional coastal ocean observing systems

Global component—part of the IOOS plan that contributes to an international partnership to develop a global system, or GOOS

GOOS—global ocean observing system

IOC—Intergovernmental Oceanographic Commission, part of UNESCO that specializes in ocean science and services and coordinates the GOOS

IOOS—integrated ocean observing system, a U.S. effort in coastal observations

National backbone—satellites, sensors, data standards, and other nationally supported components of the observing system

NFRA—National Federation of Regional Associations (still to come)

NOPP—National Oceanographic Partnership Program, created by Congress to help agencies involved in the ocean more effectively address issues

NORLC—National Ocean Research Leadership Council, made up of the heads of 12 federal agencies that are involved in

funding ocean research or developing ocean research policy

Ocean.US—federal office specifically dedicated to developing and sustaining the national ocean observing system

Regional associations—groups that coordinate data collection and data priorities in particular regions. These groups also make sure these efforts coordinate with the national system. Each association will have its own methods, models, etc.

UNESCO—United Nations Educational, Scientific, and Cultural Organization

U.S. OBSERVING SYSTEMS HOW TO FIND OUT MORE

There are already many observing systems all along U.S. coasts organized and maintained by federal, regional, state, academic, and nongovernmental organizations. To find more information on existing U.S. observing systems, please visit the following Web sites:

www.ocean.us – Ocean.US

www.csc.noaa.gov/coos/ – NOAA Coastal Services Center

<http://map.ngdc.noaa.gov/website/nosa/viewer.htm> –

NOAA Observing System Architecture

<http://chartmaker.ncd.noaa.gov/csd/op/nowcoast.htm> –

NOAA nowCOAST

www.seacoos.org – Southeast Atlantic Coastal Ocean Observing System

<http://marine.rutgers.edu/neos/> – Northeast Observing System

http://www-ocean.tamu.edu/GCOOS/new_gcoos.html –

Gulf of Mexico Coastal Ocean Observing System

www.gomoos.org – Gulf of Maine Ocean Observing System

GULF OF MEXICO HARMFUL ALGAL BLOOM BULLETIN

Coastal monitoring can be applied to a variety of coastal management issues, including hazard mitigation. The harmful algal bloom (HAB) bulletin provides timely information to the management community in the Gulf of Mexico during a bloom. The near real-time bulletins provide interpreted data that include the present location of the bloom, wind speed and direction information, and a satellite chlorophyll image.

In addition to alerting appropriate agencies about a bloom, the bulletins can also be used to target sampling efforts. The bulletin is a collaborative effort of NOAA's National Ocean Service's Center for Coastal Monitoring and Assessment, NOAA CoastWatch, and the NOAA Coastal Services Center.

Distribution, via e-mail, of the Gulf of Mexico harmful algal bloom bulletin is restricted to members of the coastal community with management responsibilities during a bloom event. To find out more information, visit www.csc.noaa.gov/crs/hab/.

Coastal Connections is a publication of the National Oceanic and Atmospheric Administration Coastal Services Center, produced for the coastal resource management community. Each issue of this free bimonthly newsletter focuses on a tool, information resource, or methodology of interest to the nation's coastal resource managers.

Please send us your questions and suggestions for future editions. To subscribe or contribute to the newsletter, contact our editors at

Coastal Connections
NOAA Coastal Services Center
2234 South Hobson Avenue
Charleston,
South Carolina 29405
(843) 740-1200
CoastalConnections@noaa.gov
www.csc.noaa.gov/newsletter/

Editor:

Alison Smith

Communications Director:

Donna McCaskill

Current Events Editor:

Hanna Goss

Copy Editor:

Gerald Esch

Graphic Designer:

Frank Ruopoli

NOAA/CSC/20326-PUB

NEWS AND NOTES



Smart Growth Conference

The third annual New Partners for Smart Growth conference will be held January 22 to 24, 2004, in Portland, Oregon. The program will feature recent smart growth issues and research, implementation tools and strategies, case studies, and new partners, projects, and policies. To view a draft agenda or to register for the conference, please visit www.outreach.psu.edu/C&I/SmartGrowth/.

San Francisco Bay NERR Now Official

The San Francisco Bay National Estuarine Research Reserve (NERR) was officially designated on October 10, 2003, making it the 26th reserve in the NERR System. Jaime Kooser is the manager.

Call for Papers for Coastal Socioeconomics Conference

The Center for Natural Resource Economics and Policy is requesting abstracts for its conference, "The Challenges of Socioeconomic Research in Coastal Systems: Valuation, Analysis, and Policy Development." The conference is May 27 and 28, 2004, in Baton Rouge, Louisiana, and will focus on socioeconomic research in coastal systems. The deadline for abstract submissions is January 15, 2004. Visit www.agecon.lsu.edu/CNREP/ for more information.

Transitions

After 25 years at his post, **Gene Wright** will retire as manager of Old Woman Creek National Estuarine Research Reserve in Ohio on January 31, 2004. **Frank Lopez** replaces him... **Dan Howard** is the new manager of the Cordell Bank National Marine Sanctuary in California.

Accolades

The Virgin Islands Coastal Zone Management Program celebrated its 25th anniversary on October 12, 2003. To commemorate the milestone, the program hosted a series of events, including naming the winner of its lifetime service award, publishing a commemorative booklet, hosting a ribbon-cutting ceremony for the St. Croix East End Marine Park, and cosponsoring a Coastweeks 2003 beach cleanup... **Rick DeVoe**, executive director of the South Carolina Sea Grant Consortium, has been appointed to the board of directors of the Southeast Atlantic Coastal Ocean Observing System.

NOAA Coastal Services Center
2234 South Hobson Avenue
Charleston, South Carolina 29405

PRST STD
POSTAGE & FEES PAID
NOAA COASTAL
SERVICES CENTER
PERMIT NO. G-19

